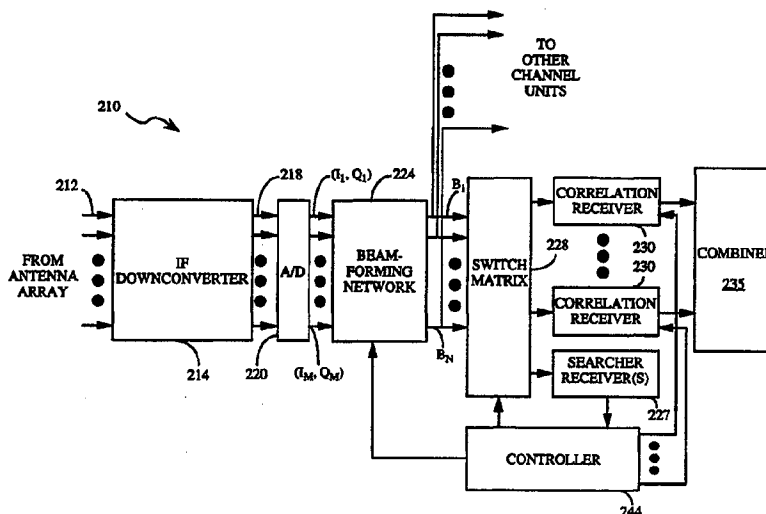




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04B 7/26, H04Q 7/36	A1	(11) International Publication Number: WO 96/00466 (43) International Publication Date: 4 January 1996 (04.01.96)
(21) International Application Number: PCT/US95/07970 (22) International Filing Date: 22 June 1995 (22.06.95) (30) Priority Data: 08/265,664 23 June 1994 (23.06.94) US (71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US). (72) Inventors: ANTONIO, Franklin, P.; 2765 Cordoba Cove, Del Mar, CA 92014 (US). GILHOUSEN, Klein, S.; 6474 Jackson Creek Road, Bozeman, MT 59715, (US). WOLF, Jack, K.; 8529 Prestwick Drive, La Jolla, CA 92037 (US). ZEHA VI, Ephraim; 15A Watson Street, 34751 Haifa (IL). (74) Agent: MILLER, Russell, B.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (US).		(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>

(54) Title: ADAPTIVE SECTORIZATION IN A SPREAD SPECTRUM COMMUNICATION SYSTEM



(57) Abstract

A system and method for adaptively sectorizing channel resources within a digital cellular communication system. The system utilizes an antenna array for providing at least first and second electromagnetic beams for receiving a first information signal transmitted by a specific one of a plurality of users (22), thereby generating first and second received signals. A first set of beam-forming signals are then generated from the first and second received signals by a beam-forming network (224) and a switch matrix (228). Demodulating receivers (230) are provided for demodulating at least first and second beam-forming signals included within the first set of beam-forming signals, thereby producing first and second demodulated signals. The system further includes a tracking network (240) for tracking multipath information signals, received from various positions and angles of incidence.